FOLIA TAXONOMICA 11.
CONSPECTUS OF *VARRONIA* (CORDIACEAE: BORAGINALES) IN THE GUIANA SHIELD WITH THREE NEW COMBINATIONS

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ABSTRACT

The conspectus lists the 17 taxa of newly resurrected *Varronia* P. Browne (Cordiaceae) present in the flora of the Guiana Shield or rejected. The synonymy and three new combinations are included: **Varronia bullata** subsp. **humilis** (Jacq.) Feuillet, **V. cremersii** (Feuillet) Feuillet, and **V. marioniae** (Feuillet) Feuillet. Short comments and a key are provided to help identify the species.

RÉSUMÉ

Le conspectus liste les 17 taxa présents dans la flore du Bouclier Guyanais, ou rejetés, du genre récemment rétabli *Varronia* P. Browne (Cordiaceae). La synonymie et trois combinaisons nouvelles sont présentées: **Varronia bullata** subsp. **humilis** (Jacq.) Feuillet, **V. cremersii** (Feuillet) Feuillet et **V. marioniae** (Feuillet) Feuillet. De brefs commentaires et une clé sont fournis pour aider à identifier les espèces.

On the base of strong morphological and molecular arguments, Miller and Gottschling (2007) resurrected *Varronia* P. Browne for the shrubby species of *Cordia* L. with spicate or condensed inflorescences. *Varronia* species are easily recognized from *Cordia* by their spicate or condensed inflorescences and multi-stemmed habit. They also differ by their leaves usually serrate with a craspedodromous venation and their porate pollen grains.

Following most authors and especially Johnston (1935, 1936), all modern regional treatments included *Varronia* in *Cordia* (Gaviria 1987; Estrada 1995; Miller et al. 1997). Borhidi et al. (1988) had made many new names in *Varronia* for *Cordia* species and Miller (2007) published several new combinations for Central America and the Venezuelan Guayana. The Boraginaceae (Feuillet et al. 2007) in the Checklist of the Plants of the Guiana Shield was at the press when Miller and Gottschling (2007) was published. To provide an update to the checklist and during the preparation of the treatment for Flora of the Guianas, a conspectus of *Varronia* in the flora of the Guiana Shield with three new combinations should help the users and students of the vegetation of northern South America.

The geographical area covered by this paper includes the following administrative or political entities: the three Venezuelan states situated east of the Orinoco River (Amazonas, Bolívar, Delta Amacuro) and the three Guianas (Guyana, Surinam, French Guiana).

1. Varronia bullata L., Syst. Nat., ed. 10, 916. 1759. *Cordia bullata* (L.) Roem. & Schult., Syst. Veg. 4:462. 1819. TYPE: JAMAICA: *P. Browne s.n.* (HOLOTYPE: LINN (Savage Catalog number 255.2); microfiche).

Cordia asperrima DC., Prodr. 9:498. 1845. (non *C. asperrima* Spreng.). *Varronia asperrima* (DC.) Fresen, Bull. Soc. Bot. Genève, sér. 2 24:155. 1933. TYPE: JAMAICA: *Bertero s.n.* (G-DC, microfiche).

Distribution.—Present from Mexico and the West Indies to Peru and Venezuela. Miller et al. (1997) cite Guyana for subsp. *humilis*, but I have not seen a Guyanan specimen for this taxon. In our area, only subsp. *humilis* (next) is present.

1a. Varronia bullata subsp. **humilis** (Jacq.) Feuillet, comb. nov. BASIONYM: *Varronia humilis* Jacq., Enum. Syst. Pl. 14. 1760. *Cordia humilis* (Jacq.) G. Don, Gen. Hist. 4:383. 1838. *Cordia globosa* var. *humilis* (Jacq.) I.M. Johnst., J. Arnold Arbor. 30:98.

1949. *Cordia globosa* subsp. *humilis* (Jacq.) Borhidi, Bot. Közlem. 58:171. 1971. *Cordia bullata* subsp. *humilis* (Jacq.) Gaviria, Mitt. Bot. Staatssamml. München 23:189. 1987. *Varronia globosa* subsp. *humilis* (Jacq.) Borhidi, Acta Bot. Hung. 34:385. 1988. TYPE: "Browne, Civ. nat. hist. Jamaica 1:172, t. 13, f. 1" (ICONOTYPE).

Varronia dasycephala Desv., J. Bot. (Desv.) 1:274. 1808. *Cordia dasycephala* (Desv.) Kunth, Nov. Gen. Sp. (quarto ed.) 3:76. 1818. TYPE: VENEZUELA: *Humboldt & Bonpland 23* (HOLOTYPE: P; ISOTYPE: B-W)

Varronia globosa Jacq., Enum. Syst. Pl. 14. 1760. *Cordia globosa* (Jacq.) Kunth, Nov. Gen. Sp. (quarto ed.) 3:76. 1818. TYPE: "Caribaearum maritimis" (no original material seen).

Distribution.—In our area: Delta Amacuro, Bolívar. Also: Mexico, Central America, West Indies, central and eastern parts of N Venezuela.

Varronia bullata subsp. *humilis* has terminal capitate inflorescences with the fertile part 1.5–2 cm in diameter. The corollas are 7–10 mm long with five lobes deeply emarginate and mucronate. Differing from it, *V. macrocephala* Desv. has stellate trichomes and apically rounded corolla lobes, and *V. bonplandii* Desv. from north central Venezuela and *V. sangrinaria* (Gaviria) J.S. Mill. from western Venezuela have both terminal and axillary inflorescences and unlobed or very shallowly lobed corollas.

2. Varronia cremersii (Feuillet) Feuillet, comb. nov. BASIONYM: *Cordia cremersii* Feuillet, Novon 13:435. 2003. TYPE: FRENCH GUIANA: *G. Cremers & J.-J. de Granville 13934* (HOLOTYPE: US; ISOTYPES:: CAY, NY, P, U).

Distribution.—In our area: known only from the type collection in southern French Guiana, on a rocky outcrop. Endemic.

Varronia cremersii has capitate terminal and axillary inflorescences 1–1.2 cm in diameter, and the styles first branching is near the middle and the second divisions halfway between the first and the tips. It is easily separated from *V. steyermarkii* from Venezuela by the shape of the leaves (cf. key below). It differs from the Brazilian (Bahia) *V. harleyi* (Taroda) J.S. Mill. by its shorter petioles, longer and narrower leaf blades that are cuneate at base and acute to long acute at apex, and its shorter inflorescence peduncles and somewhat smaller corollas (Feuillet 2003).

3. Varronia curassavica Jacq., Enum. Syst. Pl. 14. 1760. *Cordia curassavica* (Jacq.) Roem. & Schult., Syst. Veg. 4:460. 1819. *Lithocardium curassavicum* (Jacq.) Kuntze, Revis. Gen. Pl. 2:977. 1891. TYPE: DUTCH ANTILLES: Curaçao, *E.P. Killip & L. Smith 1067* (NEOTYPE: NY; ISONEOTYPE: US).

Lantana bullata L., Sp. Pl. 627. 1753. (non *Varronia bullata* L.) *Montjolya bullata* (L.) Friesen, Bull. Soc. Bot. Genève, sér. 2, 24:142. 1933. ICONOTYPE: Plukenet, Alamg. 393, tab. 221, fig. 3. 1696, "*Salvia barbadensibus dicta, spica florum compactiori.*"

Varronia martinicensis sensu J.B. Aublet, L.C. Richard, Lam., non Jacq. 1760.

Varronia macrostachya Jacq., Enum. Syst. Pl. 14. 1760 (non Ruiz & Pav.). *Cordia macrostachya* (Jacq.) Roem. & Schult., Syst. Veg. 4:461. 1819, "macrostachia" (non Spreng. 1825). *Lithocardium macrostachyum* (Jacq.) Kuntze, Revis. Gen. Pl. 2:977. 1891. TYPE: COLOMBIA: Cartagena (fide Johnston, 1935).

Varronia guianensis Desv., J. Bot. (Desvaux) 1:270. 1809. *Cordia gujanensis* (Desv.) Roem. et Schult., Syst. Veg. 4:460. 1819. *Montjolya guianensis* (Desv.) Friesen, Bull. Soc. Bot. Genève, sér. 2, 24:142. 1933. TYPE: FRENCH GULANA: *Ex herb. Richard s.n.* (HOLOTYPE: P; ISOTYPE: P).

Cordia divaricata Kunth, Nov. Gen. Sp. 3:74. 1818. *Lithocardium divaricatum* (Kunth) Kuntze, Revis. Gen. Pl. 2:977. 1891. *Varronia divaricata* (Kunth) Borhidi, Acta Bot. Hung. 34(3–4):391. 1988. TYPE: VENEZUELA: *Humboldt & Bonpland 72* (HOLOTYPE: P; ISOTYPE: B-W, photo. F, US)

Cordia graveolens Kunth, Nov. Gen. Sp. 3:74. 1818. *Cordia cylindrostachya* var. *graveolens* (Kunth) Griseb., Fl. Brit. W.I. 480. 1861. *Varronia graveolens* (Kunth) Borhidi, Acta Bot. Hung. 34(3–4):391. 1988. TYPE: VENEZUELA: *Humboldt & Bonpland 1074* (HOLOTYPE: P; ISOTYPE: B-W)

Cordia canescens Kunth, Nov. Gen. Sp. 3:75. 1818. *Lithocardium canescens* (Kunth) Kuntze, Revis. Gen. Pl. 2:976.1891. *Varronia canescens* (Kunth) Borhidi, Acta Bot. Hung. 34(3–4):390. 1988 (non Andersson 1853). TYPE: COLOMBIA: *Humboldt & Bonpland s.n.* (HOLOTYPE: P; ISOTYPE: B-W, photo. F, US)

Cordia spicata Willd. ex Roem. & Schult., Syst. Veg. 4:799. 1819. TYPE: VENEZUELA: *Humboldt & Bonpland s.n.* (HOLOTYPE: B-W; ISOTYPE: P)

Cordia rugosa Willd. ex Roem. & Schult., Syst. Veg. 4:801. 1819. TYPE: VENEZUELA: *Humboldt & Bonpland s.n.* (HOLOTYPE: B-W; photo P)

Cordia interrupta DC., Prodr. 9:491. 1845. *Cordia cylindrostachya* var. *interrupta* (DC.) Griseb., Fl. Brit. W.I. 480. 1861. *Lithocardium cylindrostachyum* var. *interruptum* (DC.) Kuntze, Revis. Gen. Pl. 2:438. 1891. GUYANA: *Hostmann 323* (LECTOTYPE: G-DC). The specimen cited in the text by A.P. de Candolle, *"Perrottet" 212*, from French Guiana, is a mixture (fide Johnston 1935). In an infra note, Alph. de Candolle said "et circa Surinam legit Hostmann ! 323 in h. Boiss."

Cordia verbenacea DC., Prodr. 9:491. 1845. TYPE: BRAZIL: *Gaudichaud 532* (HOLOTYPE: G-DC; ISOTYPES: NY, DL)

Cordia cuneiformis DC., Prodr. 9:492. 1845. *Lithocardium cuneiforme* (DC.) Kuntze, Revis. Gen. Pl. 2:976. 1891. *Varronia cuneiformis* (DC.) Borhidi, Acta Bot. Hung. 34(3–4):391. 1988. TYPE: VENEZUELA: *Vargas(?18) 90* (G-DC)

Cordia oxyphylla DC., Prodr. 9:492. 1845. *Lithocardium oxyphyllum* O. Kuntze, Revis. Gen. Pl. 2:977. 1891. TYPE: GUYANA: *Parker s.n.* (G-DC).

Cordia salicina DC., Prodr. 9:492. 1845. *Lithocardium salicinum* (DC.) Kuntze, Revis. Gen. Pl. 2:977. 1891. TYPE: BRAZIL: *Vauthier 204* (HOLOTYPE: G-DC; ISOTYPE: GH).

Cordia cylindrostachya sensu Schomburgk, Fauna Fl. Brit. Guiana 960. 1848 (non (Ruiz & Pav.) Roem. & Schult. 1819).

Varronia cylindrostachya sensu Graham, Ann. Carnegie Mus. 22:240. 1934 (non Ruíz & Pav. 1799).

Distribution.—In our area: Delta Amacuro, Bolívar, northern Amazonas, Guyana, Surinam, French Guiana; especially common near beaches. Also: Mexico, Central America, West Indies, South America except Chile and Uruguay, mostly in dry vegetation below 2000 m.

Varronia curassavica is characterized by leaf blades that have, at least in our area, adaxially smooth or with trichomes short erect or more often reduced to their wide conical base and abaxially with curved trichomes limited to the veins, and spicate inflorescences that are terminal or opposite to the leaves or internodal, but not axillary.

4. Varronia grandiflora Desv., J. Bot. (Desvaux) 1:273. 1808. *Cordia grandiflora* (Desv.) Kunth, Nov. Gen. Sp. 3:77. 1818. *Lithocardium grandifolium* (Desv.) Kuntze, Revis. Gen. Pl. 2:977. 1891. TYPE: VENEZUELA. *Humboldt & Bonpland 805* (HOLOTYPE: P; ISOTYPES: B-W, P).

[*Cordia rufa*] Kl. in Schomburgk, Reis. Br. Guiana 960. 1848, nom. nud.

Distribution.—In our area: Delta Amacuro, northern Bolívar, northwestern Amazonas, Guyana. Also: Colombia, Venezuela, northern Brazil.

Varronia grandiflora has terminal capitate inflorescences with unlobed corollas more than 3 cm long.

5. Varronia marioniae (Feuillet) Feuillet, comb. nov. BASIONYM: *Cordia marioniae* Feuillet, Novon 13:436. 2003. TYPE: GUYANA, Rupununi District, Dadanawa, 120 m elev., 2°49'N, 59°31'W, 6 June 1995, fl. & fr., *M.J. Jansen-Jacobs, B.J.H. ter Welle, C. Gustafsson & V. James 3931* (HOLOTYPE: US; ISOTYPES: BRG, GB, MO, U).

Distribution.—In our area: SW Guyana. Endemic.

Varronia marioniae has characteristic obovate leaf blades attenuate at base and round at apex, spicate inflorescences terminal or axillary, and emarginate corolla lobes.

6. Varronia polycephala Lam. Tabl. Encycl. 1:418. 1791. *Cordia polycephala* (Lam.) I.M. Johnst., J. Arnold Arbor. 16:33. 1935. ICONOTYPE: Plukenet, Phytogr. tab. 328, fig. 5. 1691. (see J.E. Sanchez, Fl. Colombia 14:45. 1995).

Lantana corymbosa L., Sp. Pl. 2:628. 1753. TYPE: JAMAICA.

Cordia corymbosa Willd. ex Roem. & Schult., Syst. Veg. 4:801. 1819. *Varronia macrostachya* Jacq., Enum. Syst. Pl. 14. 1760. *Cordia macrostachya* (Jacq.) Roem. & Schult., Syst. Veg. 4:461. 1819, "macrostachia." *Lithocardium macrostachyum* (Jacq.) Kuntze, Revis. Gen. Pl. 2:977. 1891. TYPE: VENEZUELA: Camara, *Humboldt & Bonpland* (B-W).

Varronia martinicensis sensu J.B. Aublet, L.C. Richard, non Jacq. 1760. TYPE: VENEZUELA: *Humboldt & Bonpland s.n.* (HOLOTYPE: B-W).

Cordia mariquitensis Kunth, in Humb., Bonpl. & Kunth, Nov. Gen. Sp. 3:75. 1818. *Lithocardium mariquitense* (Kunth) Kuntze, Revis. Gen. Pl. 2:977. 1891. *Ulmarronia mariquitensis* (Kunth) Friesen, Bull Soc. Bot. Genève, sér. 2, 24:181. 1933. *Varronia mariquitensis* (Kunth) Borhidi, Acta Bot. Hung. 34:389. 1988. TYPE: COLOMBIA: Tolima (P).

Varronia monosperma Jacq., Pl. Hort. Schoenbr. 1:18, t. 39. 1797. *Cordia monosperma* (Jacq.) Roem. & Schult., Syst. Veg. 4:463. 1819. *Varronia corymbosa* Desv., J. Bot. (Desvaux) 1:275. 1809, illeg. (renaming of *V. monosperma* Jacq. 1797), non L. ex Desf. 1804, nom. nud. *Cordia corymbosa* (Desv.) G. Don, Gen. Hist. 4:383. 1838, non Willd. ex Roem. & Schult. 1819. ICONOTYPE: VENEZUELA: "*Ex Caracas. In caldario floret totem aestatem, fructusque fert maduros.*"

Distribution.—In our area: eastern Bolívar, Guyana, Surinam. Miller et al. (1997) cite French Guiana for *Cordia polycephala*, but I have not seen a specimen of this taxon from this French region. Also: West Indies, Colombia, Venezuela, northern and coastal Brazil.

Varronia polycephala has inflorescences adnate to the petiole, branched, usually bearing a few reduced leaves and with at extremities capitate-looking condensed cymes, and corollas 5–7 mm long, unlobed. Contrary to the capitate inflorescence species, the calyx lobes are not acuminate and without tips projecting freely from closed bud.

7. Varronia polystachya (Kunth) Borhidi, Acta Bot. Hung. 34:393. 1988. *Cordia polystachya* Kunth, Nov. Gen. Sp. 3:73 [quarto]. 1818. *Lithocardium polystachyum* (Kunth) Kuntze Revis. Gen. Pl. 2:977. 1891. TYPE: VENEZUELA: *Humboldt & Bonpland 1146* (HOLOTYPE: P; ISOTYPES: B-W, P).

Cordia canescens Willd. ex Roem. & Schult., Syst. Veg. 4:797. 1819, non Kunth 1818. TYPE: VENEZUELA: Prope Maypure, *Humboldt & Bonpland s.n.* (B-W)

Distribution.—In our area: Amazonas. Endemic. To be expected in neighboring Colombia.

Varronia polystachya has spicate inflorescences that are terminal and axillary, adnate or not to the petiole, petiole up to 5 mm long and 5-lobed corollas. It differs from *V. schomburgkii*, which has inflorescences always adnate to the petioles, by the young branches lacking curly trichomes, petioles 10–12 mm long and conical to campanulate calyx, and from *V. stenostachya* which has petiole longer than 8 mm and unlobed corollas.

8. Varronia roraimae (I.M. Johnst.) J.S. Mill., Novon 17:374. 2007. *Cordia roraimae* I.M. Johnst. Fieldiana, Bot. 28:511. 1953. TYPE: VENEZUELA: Bolívar, Mt. Roraima, *J. Steyermark 59003* (HOLOTYPE: F; ISOTYPES: GH, US, VEN).

Distribution.—In our area: Bolívar. Endemic.

Varronia roraimae has spicate inflorescences terminal and axillary, adnate to the petioles, the fertile part is short and narrowly ovoid to narrowly elliptic, subglobose when young, and unlobed corollas. Contrary to *V. tomentosa*, it has calyx lobes that are not acuminate.

9. Varronia schomburgkii (DC.) Borhidi, Acta Bot. Hung. 34:393. 1988. *Cordia schomburgkii* A. DC., Prodr. 9:490. 1845. *Lithocardium schomburgkii* (DC.) Kuntze Revis. Gen. Pl. 2:977. 1891. TYPE: GUYANA: *Rob. Schomburgk ser. 1, 406* (HOLOTYPE: G-DC; ISOTYPES: BM, K, L, P, U, W).

Cordia aubletii sensu Pulle, Schomburgk non DC. 1845.

[*Cordia lucida*] Splitg. ex Pulle, Enum. Vasc. Pl. Surinam 397. 1906, nom. nud. Based on *Splitgerber 206* (L).

Cordia patens var. *polycephala* sensu Miquel, non (as form) Cham. & Schltdl. 1829.

Cordia tobagensis Urban, Repert. Spec. Nov. Regni Veg. 16:39. 1919. *Varronia tobagensis* (Urb.) Borhidi Acta Bot. Hung. 34:393. 1988. TYPE: TOBAGO: *Broadway 4235* (HOLOTYPE: B n.v.; ISOTYPE: GH).

Cordia tobagensis Urban var. *broadwayi* Urban, Repert. Spec. Nov. Regni Veg. 16:40. 1919. TYPE: TOBAGO: *Broadway 3072* (HOLOTYPE: B n.v.; ISOTYPE: GH).

Varronia guianensis sensu Graham.

Distribution.—In our area: Bolívar, Guyana, Surinam, French Guiana. Also: Trinidad-Tobago, northern Brazil.

Varronia schomburgkii has terminal and axillary, spicate inflorescences adnate to the petioles. The leaves are adaxially strigose and somewhat shiny. The inflorescences are up to 25 cm long, including the fertile and loosely flowered part 5–15 cm long. In flowers, the calyces are enlarged and cup-shaped above a short tube or seldom from the narrow base, they are covered with small resinous granules, the lobes are strigose outside, especially toward the apex. Like most spicate inflorescence species, it has calyx lobes that are not acuminate and lack tips projecting freely from closed buds. In contrast, *V. spinescens* (L.) Borhidi from western Venezuela has calyces with scattered resinous granules that are strigose but at the very base, the trichomes on the calyx tube are sometimes hirsute.

10. Varronia stenostachya (Gaviria) J.S. Mill., Novon 17:375. 2007. *Cordia stenostachya* Killip ex Gaviria, Mitt. Bot. Staatssamml. München 23:243, fig. 1987. TYPE: VENEZUELA: *R. Spruce 3642* (HOLOTYPE: K; ISOTYPES: K, W).

Distribution.—In our area: Amazonas (Raudal de Maipures), Guyana (Mt. Shiriri). Endemic of granitic outcrops.

Varronia stenostachya has terminal and axillary, spicate inflorescences not adnate to the petiole that have a thinner peduncle and fertile part than other species in our area. The petioles are 0.7–2.5 cm long and the corollas are unlobed.

11. Varronia steyermarkii (Gaviria) J.S. Mill., Novon 17:375. 2007. *Cordia steyermarkii* Gaviria, Mitt. Bot. Staatssamml. München 23:200. 1987. TYPE: VENEZUELA: *J. Saer d'Heguert 480* (HOLOTYPE: M; ISOTYPES: F, VEN).

Distribution.—In our area: Bolívar. Also: Northern Venezuela.

Varronia steyermarkii has terminal capitate inflorescences and leaves with linear-elliptic blades and petioles less than 3 mm long. The style is branching near the apex with short branches.

12. Varronia tomentosa Lam., Tabl. Encycl. 1(v. 2):419. 1792. *Cordia tomentosa* (Lam.) Roem. & Schult., Syst. Veg., ed. 15 bis [Roemer & Schultes] 4:459. 1819. *Lithocardium tomentosum* (Lam.) Kuntze Revis. Gen. Pl. 2:977. 1891. *Montjolya tomentosa* Friesen Bull. Soc. Bot. Genève ser. 2, 24:183. 1933. TYPE: FRENCH GUIANA: s.loc., from *herb. Jussieu* (P-Lamarck).

Varronia martinicensis sensu Aublet, Hist. Pl. Guiane 1:232. 1775 (non Jacq. 1760).

Cordia aubletii DC., Prodr. 9:490. 1845. *Lithocardium aubletii* (DC.) Kuntze, Revis. Gen. Pl. 2:976. 1891. *Varronia aubletii* (DC.) Borhidi Acta Bot. Hung. 34(3–4):389. 1988. TYPE: FRENCH GUIANA: *Perrottet 211* (G-DC).

Distribution.—In our area: Surinam, French Guiana. Endemic.

Varronia tomentosa has spicate inflorescences that are terminal or axillary and adnate to the petioles. The leaves are adaxially dull, scabrous with stiff ascending bristles. The inflorescences are up to 15 cm long, including the fertile and densely flowered part 1.5–4 cm long and often club-shaped. The calyx tubes are densely hairy or tomentose with intermixed resinous granules. Contrary to the other species with spicate inflorescences in our area, even *V. roraimae* with short fertile parts, the calyx lobes of *V. tomentosa* are narrowly triangular and acuminate and with acumen projecting freely from closed bud.

EXCLUDED SPECIES

Varronia cylindrostachya Ruíz & Pav., Fl. Peruv. 2:23. 1799. *Cordia cylindrostachya* (Ruíz & Pav.) Roem. & Schult., Syst. Veg. 4:459. 1819. TYPE: Fl. Peruv. 2: pl 147a "macrostachya." 1799.

Distribution.—From Venezuela to Peru. Specimens identified as *C. cylindrostachya* in our area represent *V. schomburgkii*.

Varronia ferruginea Lam., Tab. Encycl. 1:418. 1791. TYPE: Ex horto (HOLOTYPE: P-LA). *Cordia ferruginea* (Lam.) Roem. & Schult., Syst. Veg. 4:458. 1819. = *Varronia spinescens* (L.) Borhidi, Acta Bot. Hung. 34:393. 1988. (cf. below).

Specimens identified as *C. ferruginea* in our area represent *V. schomburgkii*.

Varronia multispicata (Cham.) Borhidi, Acta Bot. Hung. 34(3–4):392. 1988. *Cordia multispicata* Cham., Linnaea 4:490. 1829. *Lithocardium multispicatum* (Cham.) Kuntze, Rev. Gen. 2:977. 1891. TYPE: BRAZIL: *Sellow 46* (HOLOTYPE: B, extant?; ISOTYPE: US).

Distribution.—Coastal Brazil. Does not reach the Guianas.

Varronia spinescens (L.) Borhidi, Acta Bot. Hung. 34:393. 1988. *Cordia spinescens* L., Mant. Pl. 2:206. 1771. LECTOTYPE: LINN (Savage catalog N° 253.2) (cf. Miller, 1988).

Distribution.—From S Mexico to Bolivia and western Venezuela.

This species has a conical calyx at anthesis. Specimens so identified in our area represent *V. schomburgkii*. *Varronia spinescens* is not present either in the Venezuelan states neighboring Venezuelan Guayana.

KEY TO THE *VARRONIA* SPECIES OF THE GUIANA SHIELD

1. Inflorescences capitate or cymose very condensed.
   2. Flower heads < 5 mm diam, calyx lobes not acuminate _____ **V. polycephala**
   2. Flower heads > 5 mm diam, calyx lobes acuminate, acumen projecting freely from closed bud.
      3. Peduncles > 5 cm long; corollae > 2 cm long _____ **V. grandiflora**
      3. Peduncles mostly < 4 cm long; corollae < 1.5 cm long.
         4. Petiole at least 5 mm long; calyx lobes rounded, abruptly long acuminate _____ **V. bullata** subsp. **humilis**
         4. Petiole up to 5 mm long.
            5. Leaves ovate, seldom elliptic; peduncle 0.7–2 cm long; corolla lobes broadly elliptic, rounded at apex, 0.7–1 × 0.5 mm _____ **V. cremersii**
            5. Leaves linear to narrow-elliptic; peduncle 1–4 cm long; corolla lobes triangular, acute at apex, 1.5–2 × 1.5–2 mm _____ **V. steyermarkii**
1. Inflorescences spicate.
   6. Inflorescences terminal or opposite to the leaves or internodal, but never truly axillary _____ **V. curassavica**
   6. Inflorescences axillary or terminal and axillary, sometimes adnate to the petiole at base.

7. Calyx lobes acuminate, acumen projecting freely from closed buds ____ **V. tomentosa**
7. Calyx lobes not acuminate.
   8. Inflorescences peduncles adnate to the petiole base.
      9. Leaf blades adaxially dull; inflorescences densely flowered; corolla crenate (not 5-lobed) ____ **V. roraimae**
      9. Leaf blades adaxially shiny; inflorescences loosely flowered (with irregular gaps between groups of flowers).
         10. Calyx cup-shaped with (seldom without) a short tubular base; corolla with 5 teeth ____ **V. schomburgkii**
         10. Calyx wide conical or campanulate; corolla without 5 teeth ____ **V. polystachya**
   8. Inflorescences peduncles not adnate to the petiole base.
      11. Corolla not lobed ____ **V. stenostachya**
      11. Corolla 5-lobes.
         12. Leaf blades elliptic, acute at apex ____ **V. polystachya**
         12. Leaf blades obovate, widely rounded at apex ____ **V. marioniae**

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